GROUND WATER DISCHARGE PERMIT RENEWAL AND MODIFICATION
New Mexico Chile Products, DP-877

I. INTRODUCTION

The New Mexico Environment Department (NMED) issues this Discharge Permit Renewal and Modification (Discharge Permit), DP-877, to David Ramos (permittee) pursuant to the New Mexico Water Quality Act (WQA), NMSA 1978 §§74-6-1 through 74-6-17, and the New Mexico Ground and Surface Water Protection Regulations, 20.6.2 NMAC.

NMED's purpose in issuing this Discharge Permit, and in imposing the requirements and conditions specified herein, is to control the discharge of water contaminants from the New Mexico Chile Products (facility) for the protection of groundwater and those segments of surface water gaining from groundwater inflow, for present and potential future use as domestic and agricultural water supply and other uses, and to protect public health. In issuing this Discharge Permit, NMED has determined that the requirements of Subsection C of 20.6.2.3109 NMAC have been or will be met. Pursuant to Section 20.6.2.3104 NMAC, it is the responsibility of the permittee to comply with the terms and conditions of this Discharge Permit; failure may result in an enforcement action(s) by NMED (20.6.2.1220 NMAC).

The activities which produce the discharge, the location of the discharge, and the quantity, quality and flow characteristics of the discharge are briefly described as follows:

Up to 28,000 gallons per day (gpd) of wastewater generated by a chile processing facility is discharged to a concrete-lined sump and chile solids are removed. Wastewater then flows to an additional concrete-lined sump for storage before land application by flood irrigation to up to 10.5 acres of surface disposal area. The modification consists of an increase in the total discharge from 18,000 gpd to 28,000 gpd, and an increase of surface disposal area from 4 acres to 10.5 acres. Solids generated by chile processing are stored at the facility prior to disposal offsite in accordance with all local, state, and federal regulations.

The discharge contains water contaminants which may be elevated above the standards of Section 20.6.2.3103 NMAC and/or the presence of toxic pollutants as defined in Subsection WW of 20.6.2.7 NMAC.

The facility is located at 3225 Highway 418 SW, approximately 3 miles southwest of Deming, in Section 6, Township 24S, Range 9W, Luna County. Groundwater most likely to be affected is at a depth of approximately 138 feet and has a total dissolved solids concentration of approximately 302 milligrams per liter.

The original Discharge Permit was issued on October 7, 1992 and renewed and modified on February 1, 2006. The application (i.e., discharge plan) consists of the materials submitted by Ted Reyes on behalf of the permittee dated August 15, 2016 and materials contained in the administrative record prior to issuance of this Discharge Permit. The discharge shall be managed in accordance with all conditions and requirements of this Discharge Permit.

Pursuant to Section 20.6.2.3109 NMAC, NMED reserves the right to require a Discharge Permit Modification in the event NMED determines that the requirements of 20.6.2 NMAC are being or may be violated or the standards of Section 20.6.2.3103 NMAC are being or may be violated. This may include a determination that structural controls and/or management practices approved under this Discharge Permit are not protective of groundwater quality, and that more stringent requirements to protect groundwater quality may be required by NMED. The permittee may be required to implement abatement of water pollution and remediate groundwater quality.

Issuance of this Discharge Permit does not relieve the permittee of the responsibility to comply with the WQA, Ground and Surface Water Protection Regulations, and any other applicable federal, state and/or local laws and regulations, such as zoning requirements and nuisance ordinances.

The following acronyms and abbreviations may be used in this Discharge Permit:

Abbreviation	Explanation		Abbreviation	Explanation
Cl	chloride		SDDS	surface disposal data sheet(s)
gpd	gallons per day		TDS	total dissolved solids
LADS	land application data sheet(s)		TKN	total Kjeldahl nitrogen
mg/L	milligrams per liter		total nitrogen	= TKN + NO_3-N
mL	milliliters		UPC	Uniform Plumbing Code
NMAC	New Mexico Administrative Code		WQA	New Mexico Water Quality Act
NMED	New Mexico Environment Department		WQCC	Water Quality Control Commission
NMSA	New Mexico Statutes Annotated		WWTF	Wastewater Treatment Facility
NO_3-N	nitrate-nitrogen			

II. FINDINGS

In issuing this Discharge Permit, NMED finds:

1. The permittee is discharging effluent or leachate from the facility so that such effluent or leachate may move directly or indirectly into groundwater within the meaning of Section 20.6.2.3104 NMAC.

2. The permittee is discharging effluent or leachate from the facility so that such effluent or leachate may move into groundwater of the State of New Mexico which has an existing concentration of 10,000 mg/L or less of TDS within the meaning of Subsection A of

20.6.2.3101 NMAC.

3. The discharge from the facility is not subject to any of the exemptions of Section 20.6.2.3105 NMAC.

4. This Discharge Permit contains conditions associated with the following potential contamination sources:

a) Fields within the Land Application Area
   i. **West Field** –authorized for use by this Discharge Permit.
   ii. **East Field** - authorized for use by this Discharge Permit.
   iii. **South Field** - authorized for use by this Discharge Permit.
   iv. **North Field** - authorized for use by this Discharge Permit

III. AUTHORIZATION TO DISCHARGE

Pursuant to Section 20.6.2.3104 NMAC, it is the responsibility of the permittee to ensure that discharges authorized by this Discharge Permit are consistent with the terms and conditions herein.

The permittee is authorized to discharge up to 28,000 gpd of wastewater generated by a chile processing facility to a concrete sump and chile solids are removed Wastewater then flows to an additional concrete-lined sump for storage before land application by flood irrigation to up to 10.5 acres of surface disposal area. Solids generated by chile processing are stored at the facility prior to disposal offsite in accordance with all local, state, and federal regulations.

a) Fields within the Land Application Area
   i. **West Field** - consists of 1.5 acres; applied by flood irrigation. This field *has* received wastewater as of the effective date of this Discharge Permit.
   ii. **East Field** - consists of 1 acre; applied by flood irrigation. This field *has* received wastewater as of the effective date of this Discharge Permit.
   iii. **South Field** - consists of 1 acre; applied by flood irrigation. This field *has <u>not</u>* received wastewater as of the effective date of this Discharge Permit.
   iv. **North Field** - consists of 7 acres; applied by flood irrigation. This field *has <u>not</u>* received wastewater as of the effective date of this Discharge Permit.

[20.6.2.3104 NMAC, Subsection C of 20.6.2.3106 NMAC, Subsection C of 20.6.2.3109 NMAC]

IV. CONDITIONS

NMED issues this Discharge Permit for the discharge of water contaminants subject to the following conditions:

A. OPERATIONAL PLAN

#	Terms and Conditions
1.	The permittee shall implement the following operational plan to ensure compliance with Title 20, Chapter 6, Parts 1 and 2 NMAC. [Subsection C of 20.6.2.3109 NMAC]
2.	The permittee shall operate in a manner such that standards and requirements of Sections 20.6.2.3101 and 20.6.2.3103 NMAC are not violated. [20.6.2.3101 NMAC, 20.6.2.3103 NMAC, Subsection C of 20.6.2.3109 NMAC]

i. Operational Actions with Implementation Deadlines

#	Terms and Conditions
3.	Within 180 days following the effective date of this Discharge Permit (**by DATE**), the permittee shall submit an up-to-date diagram of the layout of entire facility to NMED. The diagram shall include the following elements: • north arrow • effective date of the diagram • overall facility layout • sumps • solids separators • fields within the surface disposal area with identification and acreage labeled • groundwater monitoring wells • irrigation wells • meters measuring wastewater discharges to the sump • meters measuring wastewater applied to the surface disposal area • fixed pumps for discharge and transfer of wastewater • wastewater distribution pipelines • each ditch irrigation system, acequia, irrigation canal and drain • backflow prevention methods or devices • wastewater sampling locations • septic tanks and leachfields

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	Any element that cannot be directly shown due to its location inside of existing structures, or because it is buried without surface identification, shall be on the diagram in a schematic format and identified as such. [Subsection C of 20.6.2.3106 NMAC, Subsection A of 20.6.2.3107 NMAC]
4.	Prior to discharging wastewater to the **East Field**, **South Field**, or **North Field**, the permittee shall install the infrastructure necessary to transfer, distribute and apply wastewater. Documentation confirming installation of the distribution system shall consist of a written description of the system type and location, and the method of backflow prevention employed (if applicable). Documentation shall be submitted to NMED prior to discharging to the area. [Subsection A of 20.6.2.3107 NMAC, Subsection C of 20.6.2.3109 NMAC]
5.	Prior to discharging to the **East Field**, **South Field**, or **North Field**, the permittee shall install 18-inch to 24-inch berms around the **East Field**, **South Field**, or **North Field** to prevent surface water run-on and run-off. Within 30 days of berm completion, the permittee shall submit documentation to NMED of berm installation consisting of a written description of the berm locations. [Subsection A of 20.6.2.3107 NMAC, Subsection C of 20.6.2.3109 NMAC]

ii. Operating Conditions

#	Terms and Conditions
6.	Domestic wastewater generated at the facility shall not be co-mingled with wastewater generated in the chile processing area. Domestic wastewater shall be treated or disposed of in accordance with Liquid Waste Permit issued pursuant to 20.7.3 NMAC [Subsection C of 20.6.2.3109 NMAC]
7.	The permittee shall discharge wastewater to the surface disposal area such that the amount of total nitrogen discharged does not exceed 200 pounds per acre in any 12-month period. Nitrogen content shall not be adjusted to account for volatilization or mineralization processes. Wastewater shall be distributed evenly throughout the entire disposal area. Excessive ponding shall be prevented. [Subsection C of 20.6.2.3109 NMAC]
8.	In the event that a cross-connection with fresh water exists, the permittee shall institute a backflow prevention method to protect wells and public water supply systems from contamination by wastewater prior to discharging to the land application area. Backflow

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	prevention shall be achieved by a total disconnect (physical air gap separation between the discharge pipe and the liquid surface at least twice the diameter of the discharge pipe), or by a reduced pressure principal backflow prevention assembly (RP) installed on the line between the fresh water supply wells or public water supply and the wastewater delivery system. Backflow prevention shall be maintained at all times. RP devices shall be inspected and tested by a certified backflow prevention assembly tester at the time of installation, repair or relocation and at least on an annual basis thereafter. The backflow prevention assembly tester shall have successfully completed a 40-hour backflow prevention course based on the University of Southern California's Backflow Prevention Standards and Test Procedures, and obtained certification demonstrating completion. A malfunctioning RP device shall be repaired or replaced within 30 days of discovery, and use of all supply lines associated with the RP device shall cease until repair or replacement has been completed. Copies of the inspection and maintenance records and test results for each RP device associated with the backflow prevention program shall be maintained at a location available for inspection by NMED. [Subsection C of 20.6.2.3109 NMAC]
9.	The permittee shall maintain 18-inch to 24-inch berms around the surface disposal areas to prevent surface water run-on and run-off. The berms shall be inspected on a regular basis and after any major precipitation event, and repaired as soon as possible following discovery of the damage. [Subsection C of 20.6.2.3109 NMAC]
10.	The permittee shall inspect the concrete sumps on a quarterly basis and clean as needed to prevent pump failure. The permittee shall maintain a record of sump inspections, repairs and cleanings. Solids generated in the chile processing area shall be stored and transported off-site in accordance with the conditions of this Discharge Permit. [Subsection A of 20.6.2.3107 NMAC, Subsection C of 20.6.2.3109 NMAC]
11.	The permittee shall store and remove solids separated from the wastewater in a manner and frequency necessary to prevent the contamination of groundwater. Solids collected and removed from the sump shall be contained in a waste disposal bin prior to being hauled offsite for final disposal. Solids shall be transported and disposed of in accordance with all local, state, and federal regulations. Disposal of solids on the surface disposal area is prohibited. [Subsection A of 20.6.2.3107 NMAC, Subsection C of 20.6.2.3109 NMAC]

B. MONITORING AND REPORTING

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12.	The permittee shall conduct the following monitoring, reporting, and other requirements listed below in accordance with the monitoring requirements of this Discharge Permit. [Subsection A of 20.6.2.3107 NMAC, Subsection C of 20.6.2.3109 NMAC]
13.	METHODOLOGY – Unless otherwise approved in writing by NMED, the permittee shall conduct sampling and analysis in accordance with the most recent edition of the following documents: a) American Public Health Association, Standard Methods for the Examination of Water and Wastewater (18^{th}, 19^{th} or current) b) U.S. Environmental Protection Agency, Methods for Chemical Analysis of Water and Waste c) U.S. Geological Survey, Techniques for Water Resources Investigations of the U.S. Geological Survey d) American Society for Testing and Materials, Annual Book of ASTM Standards, Part 31. Water e) U.S. Geological Survey, et al., National Handbook of Recommended Methods for Water Data Acquisition f) Federal Register, latest methods published for monitoring pursuant to Resource Conservation and Recovery Act regulations g) Methods of Soil Analysis: Part 1. Physical and Mineralogical Methods; Part 2. Microbiological and Biochemical Properties; Part 3. Chemical Methods, American Society of Agronomy [Subsection B of 20.6.2.3107 NMAC]
14.	The permittee shall submit an annual report of quarterly groundwater monitoring to NMED for the most recently completed chile season. Quarterly sampling shall be performed during the following periods and submitted **by April 1^{st}** of each year. • January 1^{st} through March 31^{st} (first quarter) • April 1^{st} through June 30^{th} (second quarter) • July 1^{st} through September 30^{th} (third quarter) • October 1^{st} through December 31^{st} (fourth quarter) [Subsection A of 20.6.2.3107 NMAC]

i. Monitoring Actions with Implementation Deadlines

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15.	Prior to discharging to the **East Field** and/or **South Field**, and prior to discharging to the

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	North Field, the permittee shall submit a written monitoring well location proposal for review and approval by NMED. The proposal shall designate the locations of all monitoring wells required to be installed by this Discharge Permit. The proposal shall include, at a minimum, the following information: a) A map showing the proposed location of the monitoring well(s) from the boundary of the source it is intended to monitor. b) A written description of the specific location proposed for the monitoring well(s) including the distance (in feet) and direction of the monitoring well(s) from the edge of the source it is intended to monitor. Examples include: 35 feet north-northwest of the northern berm of the synthetically lined impoundment; 45 feet due south of the surface disposal area; 30 feet southeast of the land application area 150 degrees from north. c) A statement describing the groundwater flow direction beneath the facility, and documentation and/or data supporting the determination. All monitoring well locations shall be approved by NMED prior to installation. [Subsection A of 20.6.2.3107 NMAC]
16.	Within 120 days following written approval by NMED and prior to discharging to the **East Field** and/or **South Field**, the permittee shall install the following new monitoring well. • One monitoring well (**MW-5**) located 20 to 50 feet hydrologically downgradient of the **South Field**. Within 120 days following written approval by NMED and prior to discharging to the **North Field**, the permittee shall install the following new monitoring well. • One monitoring well (**MW-6**) hydrologically upgradient of all contaminant sources at the facility. The well(s) shall be completed in accordance with the attachment titled *Ground Water Discharge Permit Monitoring Well Construction and Abandonment Conditions*, Revision 1.1, March 2011. Construction and lithologic logs shall be submitted to NMED within 30 days of well completion. Unless otherwise noted in this Discharge Permit, the requirement to install a monitoring well downgradient of a source is <u>not</u> contingent upon construction of or discharge of wastewater to that source, or discharge of wastewater from the facility. [Subsection A of 20.6.2.3107 NMAC]
17.	Prior to discharging to the **East Field,** the **South Field**, and/or the **North Field,** and following installation of the monitoring wells required to be installed, the permittee shall sample groundwater in the wells and analyze the samples for dissolved TKN, NO_3-N,

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	TDS and Cl. Groundwater sample collection, preservation, transport and analysis shall be performed according to the following procedure: a) Measure the depth-to-most-shallow groundwater from the top of the well casing to the nearest hundredth of a foot. b) Purge three well volumes of water from the well prior to sample collection. c) Obtain samples from the well for analysis. d) Properly prepare, preserve and transport samples. e) Analyze samples in accordance with the methods authorized in this Discharge Permit. Depth-to-most-shallow groundwater measurements, analytical results, including the laboratory QA/QC summary report, and a facility layout map showing the location and number of each well shall be submitted to NMED within 45 days of the installation of the monitoring wells. [Subsection A of 20.6.2.3107 NMAC]
18.	Within 60 days following the installation of the required monitoring wells and prior to discharging to the **East Field,** the **South Field**, and/or the **North Field**, the permittee shall survey all wells approved by NMED for Discharge Permit monitoring purposes to a U.S. Geological Survey (USGS) or other permanent benchmark. Survey data shall include northing, easting and elevation to the nearest hundredth of a foot or shall be in accordance with the "Minimum Standards for Surveying in New Mexico" (12.8.2 NMAC). A survey elevation shall be established at the top-of-casing, with a permanent marking indicating the point of survey. The survey shall bear the seal and signature of a licensed New Mexico professional surveyor (pursuant to the New Mexico Engineering and Surveying Practice Act and the rules promulgated under that authority). Depth-to-most-shallow groundwater shall be measured to the nearest hundredth of a foot in all surveyed wells, and the data shall be used to develop a groundwater elevation contour map showing the location of all monitoring wells and the direction and gradient of groundwater flow at the facility. The data and groundwater elevation contour map shall be submitted to NMED within 30 days of survey completion. [Subsection A of 20.6.2.3107 NMAC, NMSA 1978, §§ 61-23-1 through 61-23-32]
19.	Once prior to the date that the term of this Discharge Permit ends, NMED shall have the option to perform downhole inspections of all monitoring wells identified in this Discharge Permit. NMED shall establish the inspection date and provide at least 60 days notice to the permittee by certified mail. The permittee shall have any existing dedicated pumps removed at least 48 hours prior to NMED inspection to allow adequate settling time of sediment agitated from pump removal.

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	Should a facility not have existing dedicated pumps, but decide to install pumps in any of the monitoring wells, NMED shall be notified at least 90 days prior to pump installation so that a downhole well inspection(s) can be scheduled prior to pump placement. [Subsections A and D of 20.6.2.3107 NMAC]
20.	Within 150 days following the effective date of this Discharge Permit (**by DATE**), the permittee shall employ a third party to conduct downhole video inspection(s) of existing monitoring well(s) MW-4 to verify construction and condition. The permittee shall notify NMED at least seven days prior to the scheduled video inspection(s) to allow NMED personnel the opportunity to be on-site for the inspection(s). The third party shall make a video recording of the monitoring well inspection using a downhole camera and perform the inspection in accordance with the following requirements: a) Prior to well inspection with a downhole camera, depth-to-most-shallow groundwater shall be measured from the top of well casing to the nearest 0.01 feet using an electronic water level indicator consisting of dual conductor wire encased in a cable or tape graduated to 0.01 feet, a probe attached to the end of the conductor wire, and a visual or audible indicator. Care shall be taken when obtaining this measurement so as to not disturb sediments in the well. b) If groundwater sample collection is planned during the inspection event, the downhole camera shall be used to inspect a monitoring well prior to sampling the well. c) Prior to well inspection with a downhole camera, at the top of the well casing, the totalizing reading on the downhole camera shall be zeroed, or a value other than zero shall be recorded as an initial reading. d) All measurements and totalizing readings (with the exception of depth-to-most-shallow groundwater) shall be obtained to the nearest 0.1 feet. Downhole cameras that use a measurement system other than 0.1-foot increments are authorized for use; however the permittee shall report the direct measurement/reading obtained and the calculated conversion in 0.1 feet on the written log. e) All measurements and totalizing readings shall be obtained at the top of the well casing. f) The downhole camera shall be lowered into the monitoring well at a consistent speed that allows for clear video capture and does not disturb sediments in the well. g) Lowering of the downhole camera shall be paused long enough to clearly identify totalizing readings at the following points: depth-to-most-shallow groundwater; depth of the top of the screened interval; depth of the bottom of screened interval; and the bottom of the well. Within 60 days following the date of the well inspection, the permittee shall submit written and video monitoring well camera logs for every monitoring well viewed with a

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	downhole camera. The logs shall include the following information: a) The written monitoring well camera log shall include the following general information: facility name; Discharge Permit identification number; permittee's name; monitoring well identification; date and time of the monitoring well camera inspection; location of the monitoring well relative to a source or facility landmark; camera manufacturer and model; names of camera operator and any technical assistants; diameter of the casing (in inches); and a description of the physical condition of the well's concrete pad, shroud, casing and screened interval. The written log shall include measurements of distance from top of the well casing to the surface of the concrete pad; height from ground surface to the top of the concrete pad; and depth-to-most-shallow groundwater. The written log shall also include totalizing readings obtained from the downhole camera including the initial reading at the top of the well casing; depth-to-most-shallow groundwater using the borehole camera; depth of the top of the screened interval; depth of the bottom of screened interval; and the bottom of the well (total depth). The length of the screened interval shall be calculated by subtracting the depth of the top of the screened interval from the depth of the bottom of screened interval and recorded on the log. b) The video monitoring well camera log shall display the facility name; Discharge Permit identification number; permittee's name; monitoring well identification; date and time of the monitoring well camera inspection; and the totalizing readings required in item "g)", above. The permittee shall submit the video to NMED in Motion Picture Experts Group (MPEG) video format on a compact disc (CD) or digital versatile disc (DVD). [Subsection A of 20.6.2.3107 NMAC]

ii. Groundwater Monitoring Conditions

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21.	The permittee shall perform quarterly groundwater sampling in the following monitoring wells and analyze the samples for dissolved TKN, NO_3-N, TDS and Cl: • **MW-3** - located hydrologically upgradient of all contaminant sources at facility. MW-3 is located 35 feet northwest of the West Field. • **MW-4** - located hydrologically downgradient of the **West Field**. MW-4 is located 40 feet south of the West Field. • **MW-5** - intended to be located hydrologically downgradient of the proposed **South Field**. • **MW-6** - intended to be located hydrologically upgradient of all contaminant sources at the facility, should the proposed **North Field** be utilized as a surface disposal area. Groundwater sample collection, preservation, transport and analysis shall be performed according to the following procedure: a) Measure the depth-to-most-shallow groundwater from the top of the well casing to

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	the nearest hundredth of a foot. b) Purge three well volumes of water from the well prior to sample collection. c) Obtain samples from the well for analysis. d) Properly prepare, preserve and transport samples. e) Analyze samples in accordance with the methods authorized in this Discharge Permit. Depth-to-most-shallow groundwater measurements, analytical results, including the laboratory QA/QC summary report, and a facility layout map showing the location and number of each well shall be submitted to NMED in the annual monitoring report due by April 1st each year. [Subsection A of 20.6.2.3107 NMAC]
22.	The permittee shall develop a groundwater elevation contour map on a quarterly basis using the top of casing elevation data from the monitoring well survey and quarterly depth-to-most-shallow groundwater measurements obtained from the groundwater monitoring wells required by this Discharge Permit. The groundwater elevation contour map shall depict the ground water flow direction based on the groundwater elevation contours. Groundwater elevations between monitoring well locations shall be estimated using common interpolation methods. A contour interval appropriate to the data shall be used, but in no case shall the interval be greater than two feet. Groundwater elevation contour maps shall depict the groundwater flow direction, using arrows, based on the orientation of the groundwater elevation contours, and the location and identification of each monitoring well and contaminant source. The groundwater elevation contour map shall be constructed using quarterly data and included in each respective quarterly monitoring report submitted to NMED annually by April 1st each year. [Subsection A of 20.6.2.3107 NMAC]

iii. Facility Monitoring Conditions

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23.	The permittee shall estimate the monthly volume of wastewater discharged from the chile processing area to the concrete sump by recording meter readings for the facility's water supply on a monthly basis during the duration of the chile season. The estimated monthly discharge volume (based upon meter readings) shall be used to calculate the

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	average daily discharge volume by the formula below. estimated monthly discharge volume ÷ number of days between readings = average daily discharge volume The monthly meter readings, estimated monthly and average daily discharge volumes, and notes shall be submitted to NMED in the annual monitoring reports due by April 1st each year. [Subsection A of 20.6.2.3107 NMAC, Subsections C and H of 20.6.2.3109 NMAC]
24.	The permittee shall measure the monthly volume discharged from the sump to *each* field within the surface disposal area using a totalizing flow meter. The meter **Mag Meter #1** shall be located on the discharge line between the sump and the surface disposal area. The permittee shall maintain a log that records the date that discharges occur to *each* field, monthly totalizing meter readings and units of measurement. The log shall be used to calculate the total monthly volume of wastewater discharged to *each* field. The monthly volume discharged to *each* field shall be used on the SDDS to calculate nitrogen loading. A copy of the log shall be submitted to NMED in the annual monitoring reports due by April 1st of each year. [Subsection A of 20.6.2.3107 NMAC, Subsections C and H of 20.6.2.3109 NMAC]
25.	The permittee shall visually inspect the following flow meter(s) for evidence of malfunction on a weekly basis during chile production season and on a quarterly basis thereafter: a) **Mag Meter #1** - located on the line from the sump to the surface disposal/land application area. If a visual inspection indicates a flow meter is not functioning as required by this Discharge Permit, the permittee shall repair or replace the meter upon discovery, not to exceed 30 days. For *repaired* meters, the permittee shall submit a report to NMED within 30 days following the repair and include the following: a) a description of the malfunction b) a statement verifying the repair c) a flow meter field calibration report completed in accordance with the requirements of this Discharge Permit For *replacement* meters, the permittee shall submit a report to NMED with the next monitoring report and notify NMED within 30 days following the replacement that includes a design schematic for the device and a flow meter field calibration report completed in accordance with the requirements of this Discharge Permit. [Subsection A of 20.6.2.3107 NMAC, Subsection C of 20.6.2.3109 NMAC]

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26.	The permittee shall collect composite chile processing wastewater samples from the secondary concrete sump or containment basin monthly throughout the processing season. The wastewater sampling shall be performed according to the following procedure: a) Wastewater samples shall be collected from the secondary concrete sump or containment basin one hour after the start of production, three hours after the start of production, and five hours after the start of production; b) A single composite sample shall be created by combining equal volumes of the three grab samples; and c) The composite sample shall be analyzed for NO_3-N, TKN, TDS, Cl and pH. The permittee shall record the sampling date, time production started, time of the first grab sample, time of second grab sample, time of third grab sample, and time production ended on a Wastewater Sampling Log (copy enclosed). The Wastewater Sampling Log, analytical results and laboratory reports shall be submitted to NMED in the annual monitoring report due by April 1 of each year. [Subsection A of 20.6.2.3107 NMAC, Subsections C and H of 20.6.2.3109 NMAC]
27.	On an annual basis, the permittee shall collect a grab sample of equipment wash water from the secondary concrete containment basin in December of each year. The wastewater sampling shall be performed according to the following procedure: a) grab an equipment wash water sample from the secondary concrete containment basin after equipment wash down and prior to the start of chile processing; and b) analyze the grab sample for NO_3-N, TKN, TDS, and Cl. Analytical results and laboratory reports shall be submitted to NMED in the annual monitoring report. Samples shall be properly prepared, preserved, transported and analyzed in accordance with the methods authorized in this Discharge Permit. Analytical results shall be submitted to NMED in the monitoring reports due by April 30 of each year. [Subsection A of 20.6.2.3107 NMAC, Subsections C and H of 20.6.2.3109 NMAC]
28.	The permittee shall calculate the weighted average of total nitrogen in the combination of process wastewater and equipment wash water. The weighted average shall be calculated by averaging the NO_3-N and TKN analyses as follows: 70% process wastewater (Condition #26) and 30% equipment wash water (Condition #27). The calculations and weighted average shall be submitted to NMED in the annual monitoring report. [Subsection A of 20.6.2.3107 NMAC]
29.	The permittee shall keep a log of all additional fertilizer applied to each field in the land application area. The log shall contain the date of fertilizer application, the type and

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	fertilizer analysis, and the amount of fertilizer applied (lbs/ac) to each field. A copy of the log entries for the previous three-month period shall be submitted to NMED in the quarterly monitoring reports. [Subsection A of 20.6.2.3107 NMAC, Subsection C of 20.6.2.3109 NMAC]
30.	The permittee shall complete Surface Disposal Data Sheets (SDDS; copy enclosed) on a monthly basis that document the amount of nitrogen applied to *each* field within the surface disposal area during the most recent 12 months. The SDDS shall reflect the total nitrogen concentration from the most recent wastewater analysis and the measured discharge volumes to *each* field the surface disposal area for *each* month. The SDDS shall be completed with information above or shall include a statement that wastewater disposal did not occur. The SDDS shall be submitted to NMED in the quarterly monitoring reports. [Subsection A of 20.6.2.3107 NMAC, Subsection C of 20.6.2.3109 NMAC]

C. CONTINGENCY PLAN

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31.	In the event that groundwater monitoring indicates that concentrations of TKN, NO_3-N, TDS and Cl present in groundwater collected from MW-4 exceed the concentrations present in groundwater collected from MW-3, the permittee shall plug and abandon monitoring well MW-4 and replace it. [Subsection A of 20.6.2.3107 NMAC, Subsection E of 20.6.2.3109 NMAC]
32.	In the event that groundwater monitoring indicates that a groundwater quality standard identified in Section 20.6.2.3103 NMAC is exceeded; the total nitrogen concentration in groundwater is greater than 10 mg/L; or a toxic pollutant (defined in Subsection WW of 20.6.2.7 NMAC) is present in a groundwater sample and in any subsequent groundwater sample collected from a monitoring well required by this Discharge Permit, the permittee shall enact the following contingency plan: Within 60 days of the subsequent sample analysis date, the permittee shall propose measures to ensure that the exceedance of the standard or the presence of a toxic pollutant will be mitigated by submitting a corrective action plan to NMED for approval. The corrective action plan shall include a description of the proposed actions to control the source and an associated completion schedule. The plan shall be enacted as approved by NMED.

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	Once invoked (whether during the term of this Discharge Permit; or after the term of this Discharge Permit and prior to the completion of the Discharge Permit closure plan requirements), this condition shall apply until the permittee has fulfilled the requirements of this condition and groundwater monitoring confirms for a minimum of two years of consecutive groundwater sampling events that the standards of Section 20.6.2.3103 NMAC are not exceeded and toxic pollutants are not present in groundwater. The permittee may be required to abate water pollution pursuant to Sections 20.6.2.4000 through 20.6.2.4115 NMAC, should the corrective action plan not result in compliance with the standards and requirements set forth in Section 20.6.2.4103 NMAC within 180 days of confirmed groundwater contamination. [Subsection A of 20.6.2.3107 NMAC, Subsection E of 20.6.2.3109 NMAC]
33.	In the event that information available to NMED indicates that a well(s) is not constructed in a manner consistent with the attachment titled *Ground Water Discharge Permit Monitoring Well Construction and Abandonment Conditions*, Revision 1.1, March 2011; contains insufficient water to effectively monitor groundwater quality; or is not completed in a manner that is protective of groundwater quality, the permittee shall install a replacement well(s) within 120 days following notification from NMED. The permittee shall survey the replacement monitoring well(s) within 150 days following notification from NMED. Replacement well location(s) shall be approved by NMED prior to installation and completed in accordance with the attachment titled *Ground Water Discharge Permit Monitoring Well Construction and Abandonment Conditions*, Revision 1.1, March 2011. The permittee shall submit construction and lithologic logs, survey data and a groundwater elevation contour map to NMED within 60 days following well completion. Upon completion of the replacement monitoring well(s), the monitoring well(s) requiring replacement shall be properly plugged and abandoned. Well plugging, abandonment and documentation of the abandonment procedures shall be completed in accordance with the attachment titled *Ground Water Discharge Permit Monitoring Well Construction and Abandonment Conditions*, Revision 1.1, March 2011, and all applicable local, state, and federal regulations. The well abandonment documentation shall be submitted to NMED within 60 days of completion of well plugging activities. [Subsection A of 20.6.2.3107 NMAC]
34.	In the event that groundwater flow information obtained pursuant to this Discharge Permit indicates that a monitoring well(s) is not located hydrologically downgradient of

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	the discharge location(s) it is intended to monitor, the permittee shall install a replacement well(s) within 120 days following notification from NMED. The permittee shall survey the replacement monitoring well(s) within 150 days following notification from NMED. Replacement well location(s) shall be approved by NMED prior to installation and completed in accordance with the attachment titled *Ground Water Discharge Permit Monitoring Well Construction and Abandonment Conditions*, Revision 1.1, March 2011. The permittee shall submit construction and lithologic logs, survey data and a groundwater elevation contour map within 30 days following well completion. [Subsection A of 20.6.2.3107 NMAC]
35.	In the event that the SDDS show that the amount of nitrogen in wastewater applied to any field within the surface disposal area in any 12-month period exceeds 200 pounds per acre, the permittee shall propose the reduction of nitrogen loading to the surface disposal area by submitting a corrective action plan to NMED for approval. The plan shall include a schedule for completion of corrective actions and shall be submitted within 90 days following the end of the monitoring period in which the exceedance occurred. The permittee shall initiate implementation of the plan following approval by NMED. [Subsection A of 20.6.2.3107 NMAC, Subsection C of 20.6.2.3109 NMAC]
36.	In the event that a release (commonly known as a "spill") occurs that is not authorized under this Discharge Permit, the permittee shall take measures to mitigate damage from the unauthorized discharge and initiate the notifications and corrective actions required in Section 20.6.2.1203 NMAC and summarized below. Within <u>24 hours</u> following discovery of the unauthorized discharge, the permittee shall verbally notify NMED and provide the following information: a) The name, address, and telephone number of the person or persons in charge of the facility, as well as of the owner and/or operator of the facility. b) The name and address of the facility. c) The date, time, location, and duration of the unauthorized discharge. d) The source and cause of unauthorized discharge. e) A description of the unauthorized discharge, including its estimated chemical composition. f) The estimated volume of the unauthorized discharge. g) Any actions taken to mitigate immediate damage from the unauthorized discharge. Within <u>one week</u> following discovery of the unauthorized discharge, the permittee shall submit written notification to NMED with the information listed above and any pertinent updates.

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	Within 15 days following discovery of the unauthorized discharge, the permittee shall submit a corrective action report/plan to NMED describing any corrective actions taken and/or to be taken relative to the unauthorized discharge that includes the following: a) A description of proposed actions to mitigate damage from the unauthorized discharge. b) A description of proposed actions to prevent future unauthorized discharges of this nature. c) A schedule for completion of proposed actions. In the event that the unauthorized discharge causes or may with reasonable probability cause water pollution in excess of the standards and requirements of Section 20.6.2.4103 NMAC, and the water pollution will not be abated within 180 days after notice is required to be given pursuant to Paragraph (1) of Subsection A of 20.6.2.1203 NMAC, the permittee may be required to abate water pollution pursuant to Sections 20.6.2.4000 through 20.6.2.4115 NMAC. Nothing in this condition shall be construed as relieving the permittee of the obligation to comply with all requirements of Section 20.6.2.1203 NMAC. [20.6.2.1203 NMAC]
37.	In the event that NMED or the permittee identifies any failures of the discharge plan or this Discharge Permit not specifically noted herein, NMED may require the permittee to submit a corrective action plan and a schedule for completion of corrective actions to address the failure(s). Additionally, NMED may require a Discharge Permit modification to achieve compliance with 20.6.2 NMAC. [Subsection A of 20.6.2.3107 NMAC, Subsection E of 20.6.2.3109 NMAC]

D. CLOSURE PLAN

Permanent Facility Closure Conditions

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38.	In the event a facility, or a component of a facility, is proposed to be permanently closed, upon ceasing discharging, the permittee shall perform the following closure measures: Within 90 days of ceasing discharging to the wastewater system, the permittee shall complete the following closure measures: a) The line leading to the system shall be plugged so that a discharge can no longer

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	occur. b) Wastewater shall be discharged from the system to the surface disposal area, as authorized by this Discharge Permit. c) Solids removed from the sump shall be contained, transported, and disposed of in accordance with all local, state, and federal regulations. Disposal of solids on the surface disposal area is prohibited. Within 180 days of ceasing discharging to the wastewater system, the permittee shall complete the following closure measures: a) Remove all lines leading to and from the wastewater system, or permanently plug them and abandon them in place. b) Remove or demolish all wastewater system components and re-grade area with clean suitable fill to blend with surface topography, promote positive drainage and prevent ponding. The permittee shall continue groundwater monitoring until the requirements of this condition have been met and groundwater monitoring confirms for a minimum of two years of consecutive groundwater sampling events that the standards of Section 20.6.2.3103 NMAC are not exceeded and toxic pollutants are not present in groundwater. If monitoring results show that a groundwater quality standard in Section 20.6.2.3103 NMAC is exceeded; the total nitrogen concentration in groundwater is greater than 10 mg/L; or a toxic pollutant (defined in Subsection WW of 20.6.2.7 NMAC) is present in groundwater, the permittee shall implement the contingency plan required by this Discharge Permit. Following notification from NMED that post-closure monitoring may cease, the permittee shall plug and abandon the monitoring well(s) in accordance with the attachment titled *Ground Water Discharge Permit Monitoring Well Construction and Abandonment Conditions*, Revision 1.1, March 2011. When all closure and post-closure requirements have been met, the permittee may submit a written request for termination of the Discharge Permit to NMED. [Subsection A of 20.6.2.3107 NMAC]

E. GENERAL TERMS AND CONDITIONS

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39.	RECORD KEEPING - The permittee shall maintain a written record of the following information:

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	a) Information and data used to complete the application for this Discharge Permit. b) Records of any releases (commonly known as "spills") not authorized under this Discharge Permit and reports submitted pursuant to 20.6.2.1203 NMAC. c) Records of the operation, maintenance, and repair of all facilities/equipment used to treat, store or dispose of wastewater. d) Facility record drawings (plans and specifications) showing the actual construction of the facility and bear the seal and signature of a licensed New Mexico professional engineer. e) Copies of monitoring reports completed and/or submitted to NMED pursuant to this Discharge Permit. f) The volume of wastewater or other wastes discharged pursuant to this Discharge Permit. g) Groundwater quality and wastewater quality data collected pursuant to this Discharge Permit. h) Copies of construction records (well log) for all groundwater monitoring wells required to be sampled pursuant to this Discharge Permit. i) Records of the maintenance, repair, replacement or calibration of any monitoring equipment or flow measurement devices required by this Discharge Permit. j) Data and information related to field measurements, sampling, and analysis conducted pursuant to this Discharge Permit. The following information shall be recorded and shall be made available to NMED upon request: i) The dates, location and times of sampling or field measurements; ii) The name and job title of the individuals who performed each sample collection or field measurement; iii) The sample analysis date of each sample; iv) The name and address of the laboratory, and the name of the signatory authority for the laboratory analysis; v) The analytical technique or method used to analyze each sample or collect each field measurement; vi) The results of each analysis or field measurement, including raw data; vii) The results of any split, spiked, duplicate or repeat sample; and viii) A copy of the laboratory analysis chain-of-custody as well as a description of the quality assurance and quality control procedures used. The written record shall be maintained by the permittee at a location accessible during a facility inspection by NMED for a period of at least five years from the date of application, report, collection or measurement and shall be made available to the department upon request. [Subsections A and D of 20.6.2.3107 NMAC]
40.	INSPECTION and ENTRY – The permittee shall allow inspection by NMED of the facility and its operations which are subject to this Discharge Permit and the Ground and Surface Water Protection Regulations. NMED may upon presentation of proper

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	credentials, enter at reasonable times upon or through any premises in which a water contaminant source is located or in which are located any records required to be maintained by regulations of the federal government or the WQCC. The permittee shall allow NMED to have access to and reproduce for their use any copy of the records, and to perform assessments, sampling or monitoring during an inspection for the purpose of evaluating compliance with this Discharge Permit and the Ground and Surface Water Protection Regulations. Nothing in this Discharge Permit shall be construed as limiting in any way the inspection and entry authority of NMED under the WQA, the Ground and Surface Water Protection Regulations, or any other local, state or federal regulations. [Subsection D of 20.6.2.3107 NMAC, NMSA 1978, §§ 74-6-9.B and 74-6-9.E]
41.	DUTY to PROVIDE INFORMATION - The permittee shall, upon NMED's request, allow NMED's inspection/duplication of records required by this Discharge Permit and/or furnish to NMED copies of such records. [Subsection D of 20.6.2.3107 NMAC]
42.	MODIFICATIONS and/or AMENDMENTS – In the event the permittee proposes a change to the facility or the facility's discharge that would result in a change in the volume discharged; the location of the discharge; or in the amount or character of water contaminants received, treated or discharged by the facility, the permittee shall notify NMED prior to implementing such changes. The permittee shall obtain approval (which may require modification of this Discharge Permit) by NMED prior to implementing such changes. [Subsection C of 20.6.2.3107 NMAC, Subsections E and G of 20.6.2.3109 NMAC]
43.	PLANS and SPECIFICATIONS – In the event the permittee is proposing to construct a wastewater system or change a process unit of an existing system such that the quantity or quality of the discharge will change substantially from that authorized by this Discharge Permit, the permittee shall submit construction plans and specifications to NMED for the proposed system or process unit prior to the commencement of construction. In the event the permittee implements changes to the wastewater system authorized by this Discharge Permit which result in only a minor effect on the character of the discharge, the permittee shall report such changes (including the submission of record drawings, where applicable) as of January 1 and June 30 of each year to NMED. [Subsections A and C of 20.6.2.1202 NMAC, NMSA 1978, §§ 61-23-1 through 61-23-

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44.	CIVIL PENALTIES - Any violation of the requirements and conditions of this Discharge Permit, including any failure to allow NMED staff to enter and inspect records or facilities, or any refusal or failure to provide NMED with records or information, may subject the permittee to a civil enforcement action. Pursuant to WQA 74-6-10(A) and (B), such action may include a compliance order requiring compliance immediately or in a specified time, assessing a civil penalty, modifying or terminating the Discharge Permit, or any combination of the foregoing; or an action in district court seeking injunctive relief, civil penalties, or both. Pursuant to WQA 74-6-10(C) and 74-6-10.1, civil penalties of up to $15,000 per day of noncompliance may be assessed for each violation of the WQA 74-6-5, the Ground and Surface Water Protection Regulations, or this Discharge Permit, and civil penalties of up to $10,000 per day of noncompliance may be assessed for each violation of any other provision of the WQA, or any regulation, standard, or order adopted pursuant to such other provision. In any action to enforce this Discharge Permit, the permittee waives any objection to the admissibility as evidence of any data generated pursuant to this Discharge Permit. [20.6.2.1220 NMAC, NMSA 1978, §§ 74-6-10 and 74-6-10.1]
45.	CRIMINAL PENALTIES – No person shall: 1) make any false material statement, representation, certification or omission of material fact in an application, record, report, plan or other document filed, submitted or required to be maintained under the WQA; 2) falsify, tamper with or render inaccurate any monitoring device, method or record required to be maintained under the WQA; or 3) fail to monitor, sample or report as required by a permit issued pursuant to a state or federal law or regulation. Any person who knowingly violates or knowingly causes or allows another person to violate the requirements of this condition is guilty of a fourth degree felony and shall be sentenced in accordance with the provisions of NMSA 1978, § 31-18-15. Any person who is convicted of a second or subsequent violation of the requirements of this condition is guilty of a third degree felony and shall be sentenced in accordance with the provisions of NMSA 1978, § 31-18-15. Any person who knowingly violates the requirements of this condition or knowingly causes another person to violate the requirements of this condition and thereby causes a substantial adverse environmental impact is guilty of a third degree felony and shall be sentenced in accordance with the provisions of NMSA 1978, § 31-18-15. Any person who knowingly violates the requirements of this condition and knows at the time of the violation that he is creating a substantial danger of death or serious bodily injury to any other person is guilty of a second degree felony and shall be sentenced in accordance with the provisions of NMSA 1978, § 31-18-15.

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	[20.6.2.1220 NMAC, NMSA 1978, §§ 74-6-10.2.A through 74-6-10.2.F]
46.	COMPLIANCE with OTHER LAWS - Nothing in this Discharge Permit shall be construed in any way as relieving the permittee of the obligation to comply with all applicable federal, state, and local laws, regulations, permits or orders. [NMSA 1978, § 74-6-5.L]
47.	RIGHT to APPEAL - The permittee may file a petition for review before the WQCC on this Discharge Permit. Such petition shall be in writing to the WQCC within thirty days of the receipt of postal notice of this Discharge Permit and shall include a statement of the issues to be raised and the relief sought. Unless a timely petition for review is made, the decision of NMED shall be final and not subject to judicial review. [20.6.2.3112 NMAC, NMSA 1978, § 74-6-5.O]
48.	TRANSFER of DISCHARGE PERMIT - Prior to the transfer of any ownership, control, or possession of this facility or any portion thereof, the permittee shall: 1) notify the proposed transferee in writing of the existence of this Discharge Permit; 2) include a copy of this Discharge Permit with the notice; and 3) deliver or send by certified mail to NMED a copy of the notification and proof that such notification has been received by the proposed transferee. Until both ownership and possession of the facility have been transferred to the transferee, the permittee shall continue to be responsible for any discharge from the facility. [20.6.2.3111 NMAC]
49.	PERMIT FEES - Payment of permit fees is due at the time of Discharge Permit approval. Permit fees shall be paid in a single payment or shall be paid in equal installments on a yearly basis over the term of the Discharge Permit. Single payments shall be remitted to NMED no later than 30 days after the Discharge Permit effective date. Initial installment payments shall be remitted to NMED no later than 30 days after the Discharge Permit effective date; subsequent installment payments shall be remitted to NMED no later than the anniversary of the Discharge Permit effective date. Permit fees are associated with <u>issuance</u> of this Discharge Permit. Nothing in this Discharge Permit shall be construed as relieving the permittee of the obligation to pay all permit fees assessed by NMED. A permittee that ceases discharging or does not commence discharging from the facility during the term of the Discharge Permit shall pay all permit fees assessed by NMED. An approved Discharge Permit shall be suspended or terminated if the facility fails to remit an installment payment by its due date.

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	[Subsection F of 20.6.2.3114 NMAC, NMSA 1978, § 74-6-5.K]

V. PERMIT TERM & SIGNATURE

EFFECTIVE DATE: [effective date]
TERM ENDS: [expiration date]

[Subsection H of 20.6.2.3109 NMAC, NMSA 1978, § 74-6-5.I]

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MICHELLE HUNTER
Chief, Ground Water Quality Bureau
New Mexico Environment Department